EMERGING MANUFACTURING TECHNIQUES

This intensive one-day course will give participants the knowledge to be able to evaluate the production practicalities and other implications of adopting alternative composites fabrication techniques such as prepregs and UV curing.

Presenters Rowan Paton and Michael Crossthwaite are from Advanced Composite Structures Australia, at the forefront of the development of new and innovative manufacturing techniques for composites.

Using both presentations and practical demonstrations, they hope to build participants’ confidence in the use of prepregs and UV curing.

COURSE CONTEXT

This course is designed to provide relevant, experience-based knowledge about new and emerging technologies in the composites industry.

Prepreg layup and cure processing has historically been associated with high-end composites manufacturers such as the aerospace industry.

The availability of more affordable products combined with less expensive processing options means that prepreg is becoming more relevant to the composites industry in general. A wide range of prepreg materials processing methods will be discussed, including UV-curing prepregs now available.

COURSE OUTLINE

Presentations and practical demonstrations will cover:

1. Overview of the wonderful variety of composites fabrication methods
2. The use of prepregs in composites fabrication including:
   • The different types of prepregs available
   • Prepreg manufacture
   • Reinforcement options
   • Resin matrix options
   • Tooling and consumables
   • Lay-up techniques, especially for products with difficult shapes
   • Curing (in autoclave and out-of-autoclave)
   • Quality control
   • Designing for prepreg
   • Purchasing, shipping, storage and handling
3. UV-curing prepregs and resins
4. Where to use prepregs or UV curing

WHO SHOULD ATTEND

• Composites fabricators
• Production managers
• Process planners
• Engineers
• Technicians
• Educational staff
• Students

Sponsors
Rowan Paton

Rowan Paton has more than 30 years of experience with composites. As Program Manager for Materials and Manufacture at Advanced Composite Structures Australia and CRC-ACS. At CRC-ACS and ACS Australia, he is responsible for all manufacturing research projects. As well as working extensively demonstrating the possibilities with cocured prepreg structures, he led development of a number of RTM and other liquid moulding technologies, and development of forming methods for prepreg stacks and dry fibre preforms. Rowan now heads a team developing more efficient joining methods for composite structures. He is a joint holder of four patents.

Michael Crossthwaite

Michael Crossthwaite has worked in the composites industry for 25 years. At CRC-ACS and ACS-A, Michael has provided technical support to a variety of customers including Boeing, the Australian Defence Department, Airbus and Bombardier. His role as Senior Research Technician and Workshop Supervisor is complemented by experience in technical training. Michael has a depth of knowledge and experience with all aspects of prepreg, especially layup and cure, as well as a wide range of experience in wet layup and especially liquid moulding techniques. He looks forward to sharing his hands–on experience of prepreg technology with workshop participants.

Delegate Information

Delegate One
Organisation: _______________________________________
Address: ___________________________________________
__________________________________________________
Name: _____________________________________________
Job Title: ___________________________________________
Email: _____________________________________________
Mobile: ___________________ Dietary: __________________

Delegate Two
Organisation: _______________________________________
Address: ___________________________________________
__________________________________________________
Name: _____________________________________________
Job Title: ___________________________________________
Email: _____________________________________________
Mobile: ___________________ Dietary: __________________

* Program and other event details are subject to change. Composites Australia is not liable for any loss or expenses incurred. The combination of presenters at each location may vary.

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